



The Power of Positive Acting; *Reflecting on the need for authentically positive actions and seeds of hope in educating for sustainability*

Edmond P. Byrne

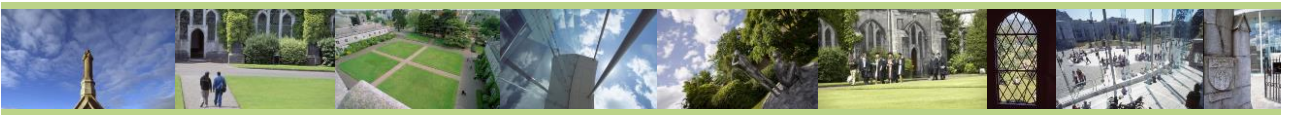
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EESD 2023, Colorado State University, Fort Collins, CO, USA

18-21 June 2023

E.P. Byrne



The Power of Positive Acting

- *An Unsustainable world; Negatives everywhere!*
- *Struggling to see the woods from the trees!*
- *Running into difficulties!*
- *Positive Actions Student Assignment*
- *Student Feedback*
- *Reflection*



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“Most of the narratives, metrics and directions around sustainability and our unsustainable societies are negative.

...the climate crisis; catastrophic biodiversity and habitat loss; energy, water and material shortages amid ever increasing consumerist drivers; ocean acidification; growing levels of socio-economic inequality; degrading social infrastructure; increasing wealth accumulation, greed, social atomization and social isolation, and lack of institutional trust.



...The increasingly doom laden warnings, ailings and failings described above, while based in science and reality, hardly inspire the type of creative transformational action necessary.”

The Irish Times, 1 June 2023

THE IRISH TIMES

irishtimes.com

Thursday, June 1, 2023
€2.40 (€3.70/Weekend Irish only)

The Irish Times 14 June 2023

Economy powers ahead but emissions also rising

CSO data indicate modest decoupling of rising emissions from economic activity

People driving to work still far outnumber commuters taking public transport

Water quality not improving, says EPA report

KEVIN O'SULLIVAN
Science and Environment Editor

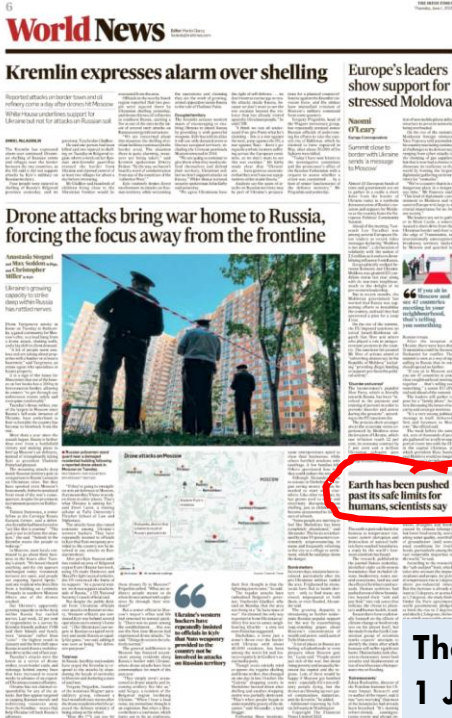
Levels of polluting nitrogen and phosphorus in Irish watercourses arising from human activities such as farming and forestry are at unacceptably high levels, according to the EPA.

Main headline;
The Irish Times
14 October 2022

Ireland will fail to meet EU water quality goal, warns EPA

Urgent action needed to reduce nitrogen emissions from agriculture, says report

Farming sector has 'disproportionate impact' on water in rivers and lakes



Earth has been pushed past its safe limits for humans, scientists say

ATTRACTA MOONEY

The earth is past safe limits for humans as temperature rise, water system disruption and destruction of natural habitats have reached boundaries, a study by the world's foremost scientists has found.

The research, published in the journal *Nature* yesterday, identified eight earth-system boundaries that included climate, biodiversity, water, natural ecosystems, land use and the effect of fertilisers and aerosols. Human activities had pushed seven of these boundaries beyond their "safe and just limit" into risk zones that indicate the threat to planetary and human health, it said.

pacts which go beyond heatwaves, droughts and floods caused by climate [change], but lower food security, worsening water quality, overdraft of groundwater [and] worsened conditions for livelihoods, particularly among the vast vulnerable majorities in the world," he said.

According to the research, the "safe and just" limit, which takes into account the impact on planet and people, for global temperature rise is 1 degree above pre-industrial times. But this increase is already at least at 1.1 degrees, or as much as 1.2 degrees, the study finds. Under the Paris agreement, world governments pledged to limit the rise to 2 degrees

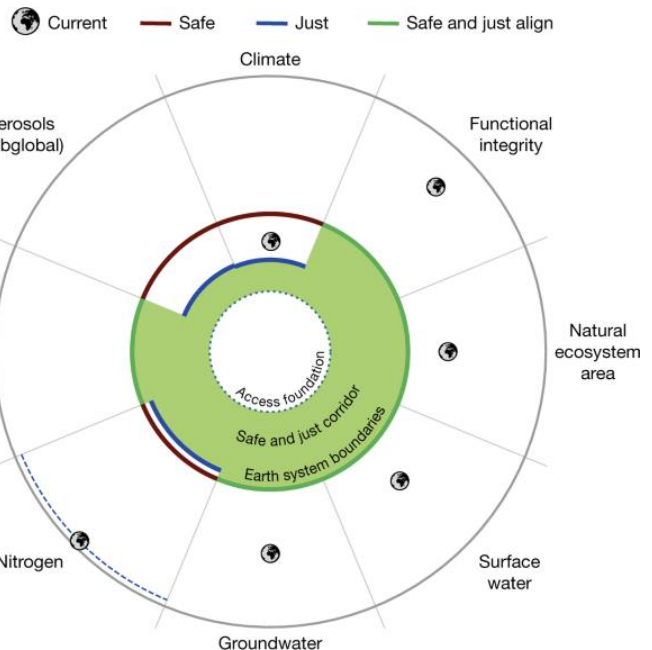
The Irish Times, 1 June 2023. p. 6

Article

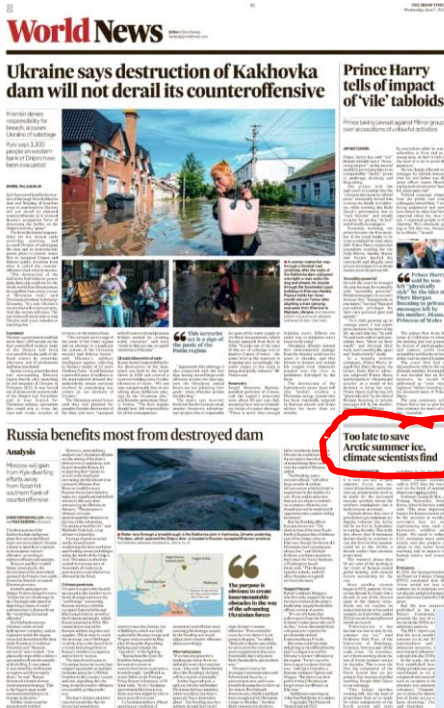
Safe and just Earth system boundaries

<https://doi.org/10.1038/s41586-023-06083-8>
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 Open access
 Check for updates

Johan Rockström^{1,2,3,4,5}, Joyeeta Gupta^{1,4}, Dahe Qin^{6,7,8}, Steven J. Lade^{9,10,11}, Jesse F. Abrams¹¹, Lauren S. Andersen¹², David I. Armstrong McKay^{13,14}, Xuemel Bai¹⁵, Govindasamy Bala¹⁶, Stuart E. Bunn¹⁶, Daniel Ciobanu¹⁷, Fabrice DeClerck^{18,19}, Kristie Ebi²⁰, Lauren Gifford²¹, Christopher Gordon²², Syezlin Hasan²³, Norichika Kanig²⁴, Timothy M. Lenton²⁵, Sina Lorant²⁶, Diana M. Liverman²⁷, Awaz Mohamed²⁸, Nebojsa Nakicenovic²⁹, David Obura³⁰, Daniel Ospina³¹, Klaudia Prodan³², Crelis Rammelt³³, Boris Sakschewski³⁴, Joeri Scholtens³⁵, Ben Stewart-Koster³⁶, Thejna Tharammal³⁷, Detlef van Vuuren^{38,39}, Peter H. Verburg^{40,41}, Ricarda Winkelmann⁴², Caroline Zimm⁴³, Elena M. Bennett^{44,45}, Stefan Brämgren⁴⁶, Wendy Broadgate⁴⁷, Pamela A. Green⁴⁸, Lei Huang⁴⁹, Lisa Jacobson⁵⁰, Christopher Nkhedehi^{51,52}, Simona Peddie⁵³, Juan Rocha⁵⁴, Marten Scheffer⁵⁵, Lena Schulte-Uebbing^{56,57}, Wim de Vries⁵⁸, Cunde Xiao⁵⁹, Chi Xu⁶⁰, Xinwu Xu⁶¹, Noelia Zafra-Calvo⁶² & Xin Zhang⁶³



Rockstrom et al., *Nature*, 31 May 2023
<https://www.nature.com/articles/s41586-023-06083-8>



Too late to save Arctic summer ice, climate scientists find

DAMIEN CARRINGTON

It is now too late to save summer Arctic sea ice, research has shown, and scientists say preparations need to be made for the increased extreme weather across the northern hemisphere that is likely to occur as a result.

Analysis shows that even if greenhouse gas emissions are sharply reduced, the Arctic will be ice-free in September in coming decades. The study also shows that if emissions decline slowly or continue to rise, the first ice-free summer could be in the 2030s, a decade earlier than previous projections.

The research shows that 90 per cent of the melting is the result of human-caused global heating, with natural factors accounting for the rest.

Since satellite records began in 1979, summer Arctic ice has shrunk by 13 per cent a decade, in one of the clearest signs of the climate crisis.

unfolding in the decades to come.”

Other climate scientists said in 2022 that the world was on the brink of multiple disastrous tipping points.

Professor Seung-Ki Min, of Pohang University, South Korea, who led the new study, said: “The most important impact for human society will be the increase in weather extremes that we are experiencing now, such as heatwaves, wildfires and floods. We need to reduce CO2 emissions more ambitiously and also prepare to adapt to this faster Arctic warming and its impacts on human society and ecosystems.”

Emissions
In 2021, the Intergovernmental Panel on Climate Change (IPCC) concluded that the Arctic would not lose its summer ice if emissions were cut sharply and global temperature rises were limited to 2 degrees.

The Irish Times, 7 June 2023. p. 8

Why do we struggle to see the wood from the trees?

New York, 7 June 2023
Angela Weiss/AFP via Getty Images, Forbes





Arial shot of the Amazon, Para State, Brazil, August 2020
(AP Photo/Andre Penner)



Arial shot of the Amazon, Para State, Brazil, August 2020
(AP Photo/Andre Penner)

Struggling to see the wood from the trees..



Brazil's Amazon deforestation surges to 15-year high, undercutting government pledge

(J. Spring & A. Broadle, Reuters, Nov. 19, 2021.)

Cattle graze in a land recently burned and deforested by cattle farmers near Novo Progresso, Para state, Brazil, Sunday, Aug. 23, 2020. (AP Photo/Andre Penner)



10 amazing benefits of running

Running can help you live longer, reduce stress and make you happier. The time to start is now!

BY ANDY DIXON UPDATED: 07 FEBRUARY 2023



Running delivers myriad health benefits for body and mind.

- reduced the risk of fatal heart attack or stroke
- improved glucose control
- lowered blood pressure
- lower risk of type 2 diabetes
- lower risk of many cancers, including breast, colon and lung.
- recreational runners actually show less wear and tear on their joints.
- helps safeguard bone density, reducing risk of osteoporosis.
- aids weight loss
- help feel calmer, happier and more resistant to stress
- reduced anxiety and depression, and improved mood
- combat cognitive decline.

Murphy, S. (2017) *Why should I run?* *Runner's World*, 3 January 2017.





“Racing along out on the trails, or even through the busy streets of a city, splashing through puddles, letting the rain drench us, the wind ruffle us, we begin to sense a faint recollection of that **childish joy**. Somewhere a **primal essence** stirs deep within us; this being **born** not to sit at a desk or read newspapers and drink coffee, but **to live a wilder existence**.

But if we push on, running harder, deeper into the loneliness, further away from the world and the structure of our lives, we begin to feel strangely elated, **detached yet at the same time connected, connected to ourselves**. With nothing but our own two legs moving us, we begin to get a vague, tingling sense of who, or what, we really are.

It may only be chemicals shooting around in your brain, but after a long run **everything seems right in the world**. Everything is at **peace**.”

The running blog
Running

Adharanand
Finn

Tue 5 Feb 2013 07:00
GMT



688

The Guardian,
5 Feb 2013

Why we love to run

It's tough, it hurts - and yet more than two million of us in the UK run at least once a week. Why? To launch [our new running blog](#), Adharanand Finn explains the enormous pleasure it brings - and how we're actually hardwired to do it



Roger Bannister, The Four Minute Mile (1955):
On running: ‘I discovered a new **unity with nature**. I had found a **new source of power and beauty**, a source **I never dreamt existed**.’

**John Ehrenfeld's 'Tao of Sustainability':
Flourishing through CARE for (domains of):
Self; Others; World around; Non-Material**

The running blog
Running

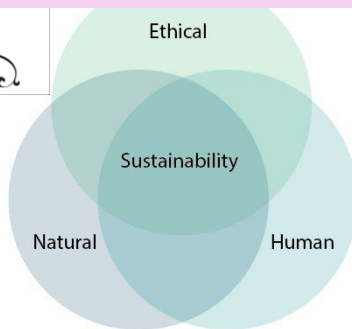
Why we love to run

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Features

- 1. All Positive: FLOURISHING (no negative/cutting back)**
- 2. Emphasized CONNECTION; including through CARE/LOVE**



Roger Bannister, The Four Minute Mile (1955):
*On running: 'I discovered a new **unity with nature**. I had found a **new source of power and beauty**, a source I never dreamt existed.'*



Charles Eisenstein's Mother Earth metaphor of Care/Love
(Climate – A new story, 2018): **'Why should I love my son?'**

"..Maybe I'll **abandon him**—what do you think?

..Well, Charles, if you do that you might go to jail for **child neglect**. And even if you get away with it, he won't be willing to **support you in your old age**. Besides, what will the **neighbors think**?

"You're right," I say. "I guess I'd better take care of him after all."

Herein lies a problem: that answer also implies that **if your health and livelihood are not threatened**, then **you needn't care**. Moreover, even if you intellectually accept that biodiversity loss threatens human well-being, there is little in our lived experience to confirm it, since modern life so thoroughly insulates us from nature. "When we propose the question **"Why should I care?"** and offer an answer, we have forfeited the argument. **Caring about other beings, about life, about our planet is aboriginal to our humanness. To offer someone a selfish reason for caring is an insult.** It says, "I know you. If it weren't for the threat to your wealth, health, or ego, you'd be just as happy to trample everything else for personal gain."

*“What then can the **ordinary engineering graduate** make of this, whose life and career ahead is both challenged to help address these **deeply systemic issues**, while somehow, as a citizen of our planet, make some sort of **positive difference or contribution?**”*



***Assignment Spec:** “Identify, research and outline an example or case study of an **authentically positive initiative or idea** which can genuinely help precipitate **transformational change towards sustainability**. ...**critique** its implementation, identifying potential barriers for implementation, how these might be overcome, potential consequences, difficulties or problematic issues.”*



“A range of projects and ideas were proposed by the 13 groups.”....

Pfandsystem (plastic bottle deposit returns) The Pfand system of plastic bottle deposit returns that is very popular in Germany, and across mainland Europe.



<https://dpg-pfandsystem.de/index.php/en/>

Frugal design

“Good design is as little design as possible.” Dieter Rams

“The capacity to simplify means to eliminate the unnecessary so that the necessary may speak.”

Hans Hofmann.

Reverse innovation, which evolved from the core concept of frugal design, aims to design out complexity to achieve simple, functional products with minimal waste and excess components.

Reducing Complexity while
Maintaining Core Functionality

Design out Non-Essential
Components and Materials

Incorporate Locally Available
Materials and Resources

Sustainability Based Value Proposition
to Gain Market Share

Beara Atlantic temperate rainforest (Beara peninsula, west Cork, Ireland)
The Beara Rainforest initiative, run and coordinated by eco-entrepreneur Eoghan Daltun on his 72 acre woodland area on the Beara peninsula.

BEARA RAINFOREST

<https://beararainforest.com/>



The **Green Schools** Programme allows young people to learn more about and put into practice various environmental issues as part of a Schoolwide programme (which earn **green flags**, flown at School sites). This is may be used as a **catalyst for broader societal change outside the school gates**. Undoubtedly, it is important for young people to feel like they can be **part of the solution**.

Working together for a sustainable future

Green-Schools is Ireland's leading environmental management and award programme, working with primary and secondary schools across the country

[Learn More](https://greenschoolsireland.org/)

<https://greenschoolsireland.org/>

WASP 3D Printing Architecture/eco-homes. This appealing concept helps bring people back in touch with nature, working with what the planet naturally provides, but respectfully. Involves transformative change, alongside the creativity that architecture can bring, while seeking to be ecologically sound.

TECLA | A 3D printed global habitat for sustainable living

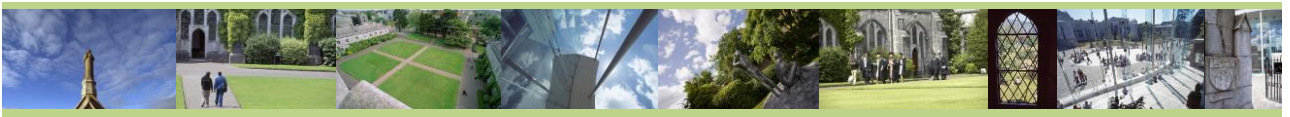
21 January 2021

A new circular housing model, created using entirely reusable, recyclable materials taken from the local terrain.



Crane WASP

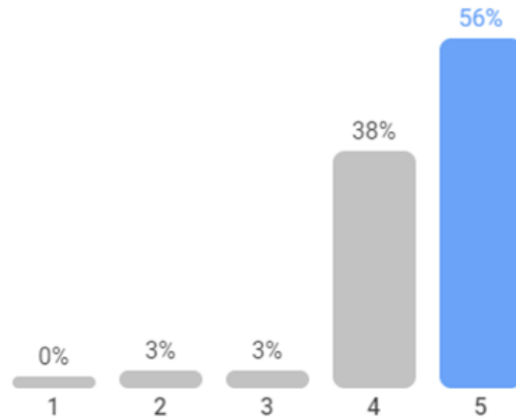
Giant 3d printer for building 3d printed house



Student Feedback

To what extent do you feel narratives around **'positive actions'** are more valuable than negative narratives (e.g. **'need for cutting back'**) in helping precipitate **societal sustainability transformation**? (5 stars: 'positive actions' narratives strongly best)

Score: ★ 4.5



Among the 32 who voted, an **overwhelming** level of support for the proposition

Nine common themes were reported by students, as part of reflective feedback;

A. Futility of wallowing in “doom and gloom”

- I think that the all-too-common “**doom and gloom**” approach makes people **defeatists**, or at worst, causes them to **push back** against climate change.
- Fear** appeals to frighten people into action have been proven to **overwhelm**. And for such a wicked problem as climate change, the **motivation** to act as an **individual** can feel **pointless**.

B. Value of Positive Actions/Initiatives: Hope:

- Positive initiatives** provide much more of a sense of **hope** than the normal doom and gloom which is frequently referenced.
- The urge to make sacrifices can occasionally feel negative and overwhelming, leaving one feeling guilty or helpless. On the other side, **encouraging behaviors** and **projects** give people a sense of **power** and **hope**. They **inspire people and communities** to **take action** by offering a **concrete means** to make a **contribution to the solution** as opposed to just feeling useless in the face of a massive problem.

C. Empowerment:

- I believe that emphasizing **positive actions** and **empowering individuals and communities** to take meaningful steps are **essential** for progress towards **transformative change for sustainability**. This gives them a sense that they are making a **meaningful contribution**.

D. Value of Local/Community Actions:

- [Such actions] make you feel almost more **connected to your community** and **increase the commitment** of making the difference.
- By focusing too much on the global issues, it can often create a sense of hopelessness, but if we take small steps at a **local level** this can often create the **most effective change**. Certainly it is these local actions that eventually culminate to create the 'global'.

E. Value of Interconnection/Collaboration/Partnership:

- Through this assignment, I gained insight into the importance of **collaboration** and **partnerships** in achieving transformational change towards sustainability. **Working together** with other *organizations and stakeholders*, we can create a **more comprehensive and effective approach** to sustainability.
- The main reflection I believe we, as a group took from this assignment, is that **transformative change toward sustainability** can **only** be achieved through a **collective** effort.

F. Motivational:

- It's important to show people that it is possible to make a difference. If people are constantly telling others "You need to cut back on this because....", people will not change but if they physically **see this change happening**, they will be **motivated to help** too.
- Positive initiatives** are more likely to be **motivating** as they promote **growth and development**, whereas cutback narratives can be demotivating as they emphasize the need to reduce or limit behaviour.

G. Value of storytelling/positive narratives:

- Positive narratives** also **empower people** to make a **positive action**.
- We as a people have the **storytelling seanchaí** [i.e. indigenous Gaelic storyteller] **tradition**, let's use this and tell encouraging tales about the **positive directions** to go and **how we can get there**.

H. Valuing frugal and simplicity:

- From 1920s Bauhaus to the emergence of the **minimalist design tradition** in the 1960s, beauty and desirability in simplicity is a well-established phenomenon. Spiritual contemplative traditions saw not only the benefits on the mind, but the **inherent beauty of simplicity** long before these twentieth century design schools.

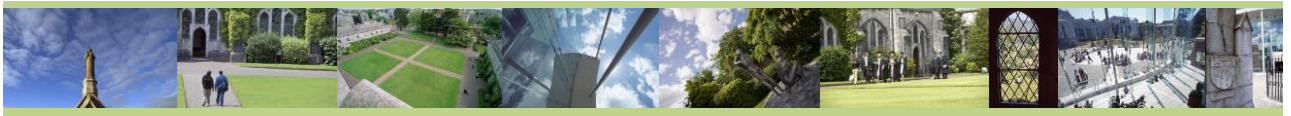
I. Positive actions promote ambition:

- From this assignment in particular, an insight I gained is that once a clear goal is set out with a **mindset of positive actions**, it immediately **changes the brainstorming dynamic**. In the past with similar assignments relating to sustainability, when I've not been told to come at the work with a positive action, it is easy to find myself **choosing a limiting option**, because naturally, it still works. However, in this project, when that option was ruled out from the get-go, the group was instantly being **more daring and showing greater reach** with the ideas being suggested.

In Conclusion..

The assignment generated an **overwhelmingly positive response**.

Authentic positive actions and initiatives have many **compelling attributes**. Common **acceptance** that initiatives such as these are **required** to elicit required levels of **motivation and empowerment**, if we may hope to succeed in facilitating the **real and meaningful transformational change** at the level required following the scientific consensus.



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 QUEST FOR SUSTAINABLE SOCIETIES